

REMARKS/ARGUMENTS

Claims 2-6, 9-12, 16-17 and 29-31 have been amended; claims 1 and 8 have been canceled and claims 7, 13-15 and 18-28 remain unchanged. Thus, claims 2-7 and 9-31 are pending.

Claims 1, 5, 6, 8, 12, 15, 16, 18, 19, 20, 22, 23 and 24 stand rejected under 35 U.S.C. 102(b) as being anticipated by Lee (5,785,796).

Claims 2-4, 9-10, and 19-21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over by Lee (5,785,796).

As amended, all pending claims of the subject application comply with all requirement of 35 U.S.C. Accordingly, Applicants request examination and allowance of all pending claims.

Formal Matters

Applicants thank the Examiner for confirming the allowance of claims 7, 13-15, 17 and 25-31. Claims 29-31 were dependent claims that have been rewritten in independent form to include all the limitations of their parent claims.

Applicants have also amended claims 2-6, 16 and 9-12 to depend from claims 7 and 17, respectively, which have already been allowed. Thus, claims 2-6, 9-12 and 16 are now believed to be in condition for allowance for at least the same reasons as the claim from which they depend.

Rejections under 35 U.S.C. § 102(b) in view of Lee

Claims 1, 8 and 18 stand rejected under 35 U.S.C. 102(b) as being anticipated by Lee (5,785,796).

Applicants previously argued that Lee did not teach the claimed step of "reducing the temperature of the substrate during the deposition of the dielectric layer from a first temperature of at least 510 degrees C to a second, lower temperature" as recited in independent claim 1 (and did not teach similar limitations recited in independent claims 8 and 18). In the section entitled "Response to Arguments" the current Office Action states that because Lee teaches forming a thermal oxide it is inherent "that the temperature is reduced in the process

chamber to control and stop the growth of the silicon oxide. This step is very [subtle], however, it is inherent and therefore meets the limitations as required by the invention of claim 1." Office Action, page 23, paragraph 3.

Applicants disagree with this position but have cancelled independent claims 1 and 8 in order to expedite prosecution and allowance of the present application. Applicants note, however, that, in addition to the limitation similar to the above-recited temperature reducing step, claim 18 further requires that the dielectric layer be a silicon oxide layer deposited by introducing TEOS and ozone gases into the deposition chamber. The Examiner will appreciate that growing a silicon oxide film by introducing a silicon-containing source gas such as TEOS into the deposition chamber is fundamentally different than growing a thermal oxide layer which heats a silicon layer in an oxygen atmosphere. For example, see the textbook section from Ghandhi, "VLSI Fabrication Principles", pp. 377-383) provided by the Examiner which explains the kinetics of forming thermal oxides and makes clear growing a thermal oxide film may include introducing an oxygen source such as molecular oxygen or water vapor but does not include introducing a silicon source. The Examiner will also appreciate that the growth of silicon oxide films by introducing TEOS and ozone into a deposition chamber as recited in claim 18 depends on the supply of TEOS and ozone gases to the chamber and that the gas supply can be discontinued long before and is independent of any decrease in temperature of the substrate. Thus, "forming a second portion of the silicon oxide film over the first portion while reducing the temperature of the substrate" is clearly not inherent in the growth of such films. Accordingly, Applicants respectfully assert that claim 18 is patentable over the Lee reference and that claims 19-24, which all depend in one manner or another from claim 18, are also patentable over Lee for at least the same reasons as claim 18.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Appl. No. 10/712,464

PATENT

Amdt. dated October 19, 2005

Amendment under 37 CFR 1.116 Expedited Procedure

Examining Group 2823

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'W. L. Shaffer', written in a cursive style.

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